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EDITOR.

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Editorial Buzzings.

The honey-bee has a golden coat,
A buzz much like a rocket;
And, O, ye foolish! heed the note!
A loaded pistol pocket.

Samples of foul-brood, or what is supposed to be foul-brood, should never be sent through the mails. It is unsafe to do so; endangering the apiaries of those to whom it is sent, as well as others in the vicinity.

Two Punic Queens are received from Mr. John Hewitt, of Sheffield, England. One was dead, but the other was in good condition. The bees which accompanied the queen were very lively, and appear to be very energetic workers. They are shiny black, and very distinctive in that matter. The queen was introduced in accordance with the printed instructions sent by Mr. Hewitt, and her progress will be stated in the BEE JOURNAL from time to time.

Iowa.—The Ninth Annual Convention of Iowa bee-keepers will be held in their tent on the Fair Grounds, at Des Moines, on Sept. 1 and 2, 1891. Addresses will be given on the following subjects: Spring Dwindling, C. D. Levering; Stray Straws on Wintering, E. Kretschmer; The Best Bees for this Country, J. W. Bittenbender; Bees and the Farm, W. M. Bomberger; Is Bee-Keeping a Suitable Occupation for Women, Mrs. C. S. Jackson; Address by the President, Eugene Secor; Some Problems in Apiculture, Prof. Herbert Osborn; Prevention of Swarming, C. P. Dadant; Lights and Shadows, Maude Meredith. Let there be a large attendance, and a lively interest in the proceedings.

Bees and Fruit.—The *National Stockman* quotes what we stated in the *Honey Almanac* on the above subject, viz.: that "bees are the best friends of the growers of small fruit; they fructify the flowers, and cause the fruit to mature. Were it not for the bees and other insects to fertilize the flowers, the trees and vines would cease to bear fruit, and become useless." It then adds the following paragraph:

This is a very important matter to bring before fruit-growers, that the truth of should be properly understood. It is an undeniable fact that without this source of impregnation of the blossoms, fruit could not mature to any profitable extent; hence, while we undergo a slight damage by them, we owe a heavy debt to these useful insects.

That is just what should be done. Let the matter be discussed thoroughly at horticultural conventions, and it will then be very soon understood that bees are the *best* friends of fruit-growers.

It is Not Best to allow the chickens to eat the dead bees around the hives, as they soon get to liking them so well that they do not stop at dead ones, but pick them off as fast as they come out of the hive.—*Exchange.*

A Fair Price. — A correspondent asked Mrs. L. Harrison this question :

What do you consider a good price by the crate for the very best white clover honey, in one and two-pound sections ?

She replied through the *Prairie Farmer* thus :

I would like to ask the querist what he considers a fair price for a pound of butter. Some years it ranges all the way from 10 to 40 cents per pound; the price is governed by the law of supply and demand. And is there any reason why honey should not be governed by the same law ?

There has been but a light crop of honey in many localities for several years, owing, in a measure, to long protracted drouths. During the past Winter, in Peoria, choice crates of white clover honey, in pound sections, brought 20 cents per pound, and two-pound sections about the same figures per pound. There was no choice, owing to the scarcity, seldom any being offered at all.

I have seen choice white clover sections sold at retail by producers who were forcing it upon the market. Those bee-keepers who were producing honey during the war, and for a few years subsequent, can never forget the high figures then obtained, and since have been watching the decline in price with anxiety.

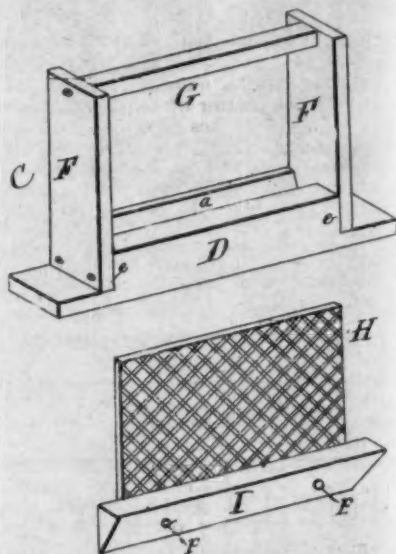
Honey is not a staple article, like butter and potatoes, and may never become one, as many families never use it at all.

A producer may create a market, and when he has educated the people to use it, and the demand has been made, another person knowing of it will bring in a large supply, and undersell him, which is not obeying that good old Golden Rule, "Do unto others as you would that they should do to you."

We hope that no bee-keeper will presume this year to break down the prices in the way mentioned by Mrs. Harrison. We know that such has been done, but is a very foolish practice. Let all honey-producers keep prices stiffly up to the market standard, and thus reap the just reward of their labors.

Death has claimed our old friend Henry Unger, of Rochelle, Ills. He had reached the age of 65 years.

Early in the present year Mr. Grubb, of Nebraska, obtained a patent on a "comb frame for bee-hives," which, on page 181, we described, and added: "There was absolutely nothing to patent—the same having been in use for years." It consists of a deep top-bar, having a V-shaped cut in it to receive the comb



foundation, and then a smaller V-shaped piece of wood is tacked on the foundation, to hold it in place, as will be seen in the engraving.

We know that it is an old plan; we have repeatedly seen it in use, but cannot now recall the places where it was seen. Will any one having used such please report, at once, and thus substantiate our words ?

Samples of Punic bees are received from E. L. Pratt, Beverly, Mass. They are well developed and very lively. Mr. Pratt says they are bred from stock which he has imported from Africa. It is interesting to study the "hardiness" of the samples of bees sent to us. Some which were received two weeks ago are lively, while others which came a week later are all dead. The food, perhaps, is the cause of the early demise of the latter.

The Weather is no doubt responsible for much of the trouble with nectar secretion and the poor quality of the fruit crop. Not only are honey-producers complaining, but horticulturists also are doing their share. The cause for the failure of the fruit and honey crop is thus stated in *Vick's* magazine for July:

The first six months of 1891 passes into history, and the chronicles of these months show in an unusual manner the precarious character of horticulture, in some of its branches at least, as pursued in this country.

The past year and, so far, the present one, form an eventful and trying term for this industry. Farm, garden and orchard crops last year had a hard struggle with weather conditions, insects and fungous diseases, and with courageous hearts the work was taken up this season with the hope of more propitious skies; a hope which, it seems, is not to be realized.

If we look abroad we find that in some parts of Europe the inclemency of the weather is equally as great as with us, and that farmers and gardeners there are engaged in as great a struggle as are ours; and, no doubt, if we were in wide correspondence on this particular subject, we should find that, with minor exceptions, the weather conditions of the whole globe are at the present time unfavorable to horticultural interests.

The meteorological conditions of the earth dependent upon, and governed by, the central force of its system, the sun, feels and responds to every change that occurs in that great source of light, heat, electricity and vitality.

Accurate observers show that at the present time the sun is undergoing great and rapid changes, and that to these changes are due the great fluctuations of the weather on our planet. In a word, then, this is the explanation of the extremes of temperature and humidity which we are now experiencing.

Writing of this subject in *New York Truth*, Blakely Hall records some interesting facts:

I had a view of the sun through the telescope of an astronomical friend the other day, and it really interested me very much, he writes. The huge black holes in the great white globe, which my friend assured me were thousands of miles across, and which looked as though

they had been smashed through regardless of consequences, rather startled me. And the glowing patches that outshone the general surface and covered millions of square miles assumed a good deal of interest when it was known that they were, in the words of my friend, "like tremendous waves of white fire driven into crests hundreds of miles high."

"Do such storms on the sun have any effect upon the earth?" I asked the astronomer.

"They make the magnetic needles jump," he replied, "and often set auroral lights gleaming in the atmosphere—that much is certain. Just how they do it nobody knows. It is electricity; some kind of an electric impulse is communicated from the sun to the earth when the former is convulsed with explosive forces."

Golden Carni-Italians.—J. A.

Roe, of Union City, Ind., has sent us a sample of what he calls Golden Carni-Italian bees. The bees are the progeny of a Golden Italian queen mated to a Carniolan drone; and, strange as it may seem, such a cross retains the bright yellow of the Italians, to which is added the silver markings of the Carniolans, making very beautiful bees. As these bees are quite large, we may fully expect them to be good workers. Mr. Roe will be pleased to send a sample of these bees, with his queen circular, giving further particulars about them, to all who will send him their address.

The Medals which are to be used by affiliated Societies are now being made, and they are beautiful as well as appropriate. They are to be used by the local Societies as awards in the Bee and Honey Department of Fairs or Exhibitions. We hope to present an engraving of both sides in our next issue.

The North American Bee-Keepers' Association is now incorporated, and is a legal body known to the law.

Clubs of 5 New Subscriptions for \$4.00, to any addresses. Ten for \$7.50.

Mr. Honey Bee's name and address seems to be wanted by some over-zealous legal gentlemen. The Kansas City (Mo.) *Journal* recently contained the following amusing item:

The Supreme Court in Central New York has decided that honey-bees who go upon other clover fields than those of their own are trespassers, and subject to the penalties of the law. This may be a very learned decision, but how is it to be enforced? To arrest a trespassing bee and ascertain its owner's name and residence would be a delicate task.

Then the New York *Press* took up the refrain in this way:

The recently-reported decision of the General Term of the Supreme Court in the central part of the State, declaring it trespass for honey-bees to go upon lands not belonging to their keeper, is enough to make the late Canute, King of Britain, turn in his grave, with bones green with envy.

Is each bee to have a little tag fastened around its waist by a delicate little wire? or are bee-collars of brass to be a staple article of Central New York manufacture? And will the statute gravely enact that "any bee found roaming at large, or caught trespassing outside on the flowers of any person not its owner, will be put in the pound until redeemed by the payment of one dime?"

In default of the payment of the dime by the owner, the owner being presumably notified by the publication, through advertisement in the local newspapers, of the number found on the bee's tag or collar, the bee will probably be put up at auction and sold to the highest bidder. This will require the creation of several local offices, and a bee-pound will be a necessary annex to the office of every country Justice of the Peace.

It is the solemn duty of the *Press* to protest against this circumscription of the liberties of the bee. Had the bees of ancient Greece been numbered, registered and tagged, they would never have tried to suck honey from Zeuxis' painted flowers, or alighted on the lips of young Xenophon. Had the bees of "Merrie England" worn collars in the days of good Dr. Watts, they never would have inspired that classical lyric of our childhood, "How doth the little busy bee," etc. For the Doctor would have seen that the bee was a slave and a creature of circumstances, busy only because it had to be, and he would never have held

it up for admiration as a model. The General Term of the Supreme Court should go to the bee, consider her ways and be wise.

All this is concerning the decision of that six-cent lawsuit in Hobart, N. Y., a year or two ago. "Funny, isn't it?"

The Ontario Agricultural and Experimental Union commenced to make a series of experiments, and have issued the following circular:

You are hereby respectfully requested to join in an experiment which we consider of practical value in apiculture. The experiment is as follows: Testing to what extent, if any, the bees thin out the septum, or base of comb-foundation, before storing the honey in the comb, and what effect various thicknesses of foundation has upon the thickness of base finally left by the bees.

We propose to supply, free of charge, until our funds are exhausted, three thicknesses of comb-foundation, known as medium brood, thin surplus, and extra thin surplus, of each kind six pieces sufficiently large to fill $4\frac{1}{4} \times 4\frac{1}{4}$ sections.

One of each thickness is to be put in sections, taking great care to keep each kind separate, marking on the side of section not exposed to the bees the kind of foundation it contains.

The sections (one of each kind) are to be placed over the central part of the brood-chamber, say, among the six central sections in a half story, or if in deep frames in the lower tier of sections, and in the central frames; no sections next the outside of super.

After the bees have stored honey in the sections, the honey is to be extracted, and the three empty sections sent by mail to R. F. Holtermann, Brantford, Ont., with the attached slip, carefully made out.

Honey-Dew is the exudations of insects which live upon the leaves of certain trees; this year the soft maples were badly infested, and a crop of honey-dew was the result. One season, a few years since, these insects damaged the maples very materially, the little twigs looking as if wound with cotton. The result was that the white clover honey was damaged, as there were cells of it scattered through what would have been choice white sections.—*Exchange*.

Queries and Replies.

Size of Brood-Chamber for Wintering.

QUERY 778.—If you desired a brood-chamber expressly for the welfare of bees during the Winter (on the summer stand), of what dimensions would you prefer to have the same?—Penn.

A 1-foot cube.—G. M. DOOLITTLE.

The same as a 10-frame Langstroth.—EUGENE SECOR.

About 1,650 or 1,700 cubic inches.—J. P. H. BROWN.

About 2,000 cubic inches, and nearly square.—J. M. HAMBAUGH.

I prefer the Langstroth hive for all purposes.—MRS. L. HARRISON.

Perhaps the best size and form is 14x14x14 inches.—M. MAHIN.

I really do not know. I think I would take the old straw skep.—C. C. MILLER.

As small as possible to accommodate the wants of the entire population.—DADANT & SON.

I would make the hive 15 inches square, and 16 inches deep, or thereabouts.—C. H. DIBBEEN.

Do not care, but should like to have the hive raised on a rim 3 inches from the bottom-board.—A. J. COOK.

If the sole object were to winter the bees, I think a box-hive, a foot square and 18 inches high, would be as good as any.—R. L. TAYLOR.

All things considered, the standard Langstroth hive, with frames 17½x9½ inches will produce as good results as any hive—and results are what we are after.—H. D. CUTTING.

I prefer, at all times, the ordinary 10-frame Langstroth hive. I have always wintered my bees on summer stands, and find that the 10-frame hive will winter a *small* colony just as well as will a smaller hive.—J. E. POND.

The capacity should be large, say, 13 Langstroth frames, or, what is preferable, a two-story hive of brood-chambers 7 inches deep, with a capacity for 1,660 square inches of brood-comb. Colonies in such hives winter better, come out stronger in Spring, and build up faster than any other.—G. L. TINKER.

I know of none better, and few as good, as one case of my divisible brood-chamber hive; 8 combs, 5 inches deep by 7½ inches long. Shallow, narrow brood-chambers are best, for obvious reasons—experience corroborates this view.—JAMES HEDDON.

Just the size of the standard Langstroth frames, 17½x9½, 10 frames to the hive. There is no better division-board than a comb filled with honey. I know that I stand nearly alone in this matter, but I am thoroughly of the opinion that bees do better in a full size hive in Winter than when crowded on a few frames. It is simply unnatural to bees to be crowded in Winter. Their nature and habit is to draw up into a compact cluster so that the air can pass all around between the cluster and the wall of the hive.—G. W. DEMAREE.

The Langstroth hive we prefer for all purposes—Winter and Summer.—THE EDITOR.

Better than Alfalfa.

I take the liberty of sending the enclosed plant, and would like to learn its scientific and common name. It has proved to be by far our most productive honey plant—more so than the cleome, of which we have an abundance, or, considering the amount of it, better even than our alfalfa. The bees work on it about the first thing in early Summer, and keep working on it every day until the last thing in the Fall.

GEO. H. EVERSOLE.

La Plata, N. M.

[The plant sent by Mr. Eversole is known in science as *Gourea coccinea*. I know of no common name. It is very closely related to our excellent honey plant *Epelobium angustifolium*, or fireweed, or tall willow-herb, and so we would expect good things of it. It belongs to the evening primrose family.—A. J. COOK.]

France.—The fact that the Government so cordially and readily accepted the invitation to take part in the World's Columbian Exposition at Chicago, is matter of wide-spread satisfaction, which is daily growing all over France.—*Les Debats*, Paris, France.

Topics of Interest.

Preventing Egg-Laying in the Sections.

G. M. DOOLITTLE.

A correspondent wishes to know how brood can be kept out of the section boxes, and why such a state of affairs is more prevalent than years ago. Years ago, when all the hives in use contained 2,000 or more cubic inches, brood in surplus boxes was of rare occurrence, as our correspondent suggests, but since the apiarists of our land have come to cut down the size of the brood-chamber to less than two-thirds of the size which was formerly used, so as to get a larger surplus of comb-honey, brood in the sections is of quite common occurrence.

Nothing is more provoking to an apiarist, when he goes to a hive expecting to find all of the boxes filled with nice white honey, than to find them filled with honey down to within an inch or two of the bottom, as he expected, and the rest filled out with brood.

Another thing which causes this state of affairs to exist is the excluding of all drone comb from the brood-chamber, for bee-keepers have learned that the rearing of hosts of drones is one of the reasons that more honey was not formerly obtained. Bees will have drones, and if they cannot secure them in any other way they will cut down worker comb and build in drone, still if any drone comb is on the sections they seem to prefer to have the queen "go up stairs," and lay in the honey apartment, rather than cut down comb already built.

TO KEEP THE QUEEN BELOW.

Now, there are three ways of keeping the queen down below, where she belongs; the first of which is a large brood-chamber, as has already been hinted at. But as this is a kind of remedy that is a loss to the bee-keeper, no one thinks of using such a hive at the present time. About the time that contraction of the brood-chamber began to be thought of, comb-foundation was invented, and it soon became apparent that if the queen could not find any drone comb in the surplus chamber, where the bees were averse to brood in any event, the remedy would be complete.

Then, again, honey stored in worker comb presents a much finer appearance, so we were not long in deciding that if we would reap the best results we must

fill our sections with worker foundation, which the larger part of our bee-keepers do to-day. But contraction became a fever in the minds of some, and was carried to such an extent that the queen had not room enough left below in which to indulge her egg-laying capacity, even for worker brood, so we had sections filled completely full of worker brood.

Not to be foiled, bee-keepers soon brought into use perforated zinc, the perforations of which were so nicely made that they would readily allow a worker to pass through it, but when the queen came to try the same thing she could not get through. In this we have a perfect thing, so where a perforated honey-board is used it is impossible to have brood in the surplus apartment. There has been quite a little theorizing regarding this method of keeping the queen where she belongs; some claiming that not so much honey could be obtained where the bees were compelled to pass through so small an aperture to reach the sections, "for," said they, "bees are often loath to enter the surplus boxes anyway."

However, time, that prover of all things, has shown that these theories are false, for facts prove that as much honey is stored where perforated honey-boards are used as is stored without them, and they are beginning to be considered a necessary part of bee-keeping, whether we work for comb or extracted-honey. But it was soon found that all-metal honey-boards were too expensive, and that they would be kinked and warped by use; so again the inventive genius of the apiarist was called into play and we had a combination of zinc and wood, which gave us a much better board, in that it was more rigid and not so liable to get out of shape; besides it was much cheaper and answered the purpose equally well.

IF YOU HAVE NO HONEY-BOARDS.

But some may say, "All very well, but I am not so prepared for this season; what am I to do if I find brood in my sections?" Well, there are two or three ways of working when brood is found in the sections, and it depends somewhat on the stage the brood is in when found. If in the egg or larva form, take the sections off the hive and carry them to the cellar, leaving them there for four or five days till the brood spoils, when they are returned to the hive, and if the queen does not enter them again they will be filled and look as well as if no brood had ever been in them, for the bees will remove every particle of offensive matter making all as good as new.

If the brood is capped over, take a honey-knife and shave off the brood down to within one-fourth of an inch of the septum of the comb, and return it to the hive. The bees will now clean it up and build out the cells again the same as they would work out the foundation, but the honey will not have quite so nice an appearance as it would if the brood never had been in. Then the brood can be left till the bees hatch out, and if the season holds out the comb will be filled with honey, which will have to be sold as second quality, this being better than nothing.—*Stockman and Farmer.*

Where the Honey is Stored.

C. W. DAYTON.

In the accompanying diagram the square designated by A, A, is the space occupied by a 7-frame (Langstroth size) brood-nest, viewed from the ends of the frames.

The circle B, B, within the square, shows the position of the brood, as the bees naturally place it.

The exact point at which the bees begin to store honey is located at H, which is at the upper margin of the brood. Proceeding from H, the storage of honey is always the same at any distance or direction from it.

If two racks of sections, with their bee-space above the brood frames be placed above the brood-nest, the inclination to store honey in them, and in other parts of the hive, is as represented by the large circle, C, C. The bees store honey as readily at one C, as at the other.

Where the brood and honey come together at H there is a conflict, and this causes the upper side of the brood-sphere to be flattened so that the brood is broader horizontally than obliquely, and for this reason honey will be as readily stored at the points D, D, as at C, in the upper part of the diagram. In other words, the space at D is more useful for the storage of honey than upper C, and on this account 7 frames full of brood are nearly an exact equivalent to 8 frames, as we usually find them.

With a colony in a 7-frame brood-nest (equivalent to 8 frames) the bees enter the surplus above by a passageway less than 11 inches wide, while if the lower hive should be widened to the dotted line D, D, the amount of brood-space that adjoins the surplus is $2\frac{1}{2}$ times as much, and the tendency of the bees to put honey outside the brood-combs is more than

twice as much from the three sides together as from the one alone.

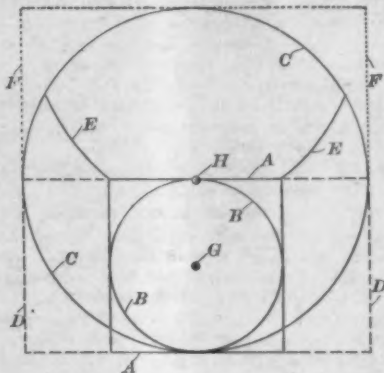
Again, in order to put honey above the brood-nest the bees must pass over an apparently vacant space, or through a honey-board, which is a hindrance, when, in side storage, it only requires the passage from one comb to an adjoining one in the same apartment.

Here I wish to call the reader's attention to the size of hive to use.

THE SECRET IN LARGE HIVES.

The 8-frame hive we have represented by the boundary line A, A. If the number of combs be increased to 12 or 14, the hive will be widened out to the dotted lines D, D.

By prevailing contraction systems, these added spaces were filled up with dummies, and so few combs remained in the



lower hive that, at the beginning of the harvest, the bees were crowded through a honey-board into a dry, uninviting chamber, while, on the other hand, and in the case of large hives, the bees were coaxed along from comb to comb in the lower story until they have stored one-third to one-half a crop, and the duration of the harvest one-half gone.

Now, it is a rule that when the honey harvest has continued 10 days, the colonies, though full of brood and bees at first, are twice as populous as then, and the hive, even if it be of large size, is literally boiling over with bees.

At this stage of the harvest no one complains that the bees are not in the supers, but the complaint is that they do not begin in the supers until the harvest is partly gone.

In using small hives the sections are filled first and Winter stores secured later, but with large hives it is just the reverse.

Clinton, Wis.

How Can Producers Reach the Trade?

DEMA BENNETT.

The title presupposes that you will have the honey to dispose of, and as it takes pretty good management to secure honey in these latter days, in the way of having your bees strong at just the right time, and having your dishes right side up, etc., I conclude that nothing need be said on the point of producing the honey, except as it may refer to the subject under discussion, through the quality or appearance, which must necessarily begin to be effected while still in the hive.

For comb-honey, I believe that the section-holder, which is a topless wide frame holding one row of sections, is the best thing for the purpose that I have ever seen. I will quote from "Ernest's Notes of Travel," in *Gleanings*, page 57: "It protects three sides of the section from the travel of the bees. . . . We pulled over several piles of T supers. In all, I noticed the bees had chinked in considerable propolis between the edges of the sections." I am glad to know that I shall have at least one on my side of this feature of the subject.

By using these section-holders, you can wedge them up or use a "dummy" so as to keep the sections nice and bright; consequently, you do not have as much scraping of propolis, which is sometimes accompanied by the slipping of the knife into the honey, and "thumb marks" on the sections, which prevent it being rated as a first-class article.

For extracted-honey, I would advise using combs of worked-out wired foundation; this makes them strong, so there is no danger of breaking them out of the frame. Some think that old combs do not make any difference in the color of honey. I used to think so, too, but I do not any more, and you know that when one changes their opinion, they do not ever get quite back to the original position again.

Put water into old combs, allow it to remain awhile, and then shake it out. Remember how thin honey is when it is brought in fresh from the flowers, and if it did not soak some color out of the combs, as water does, it would be a miracle. Honey should be left in the hive until pretty well sealed before extracting, then when drawn from the extractor it should be put into a deep storage can (the ripened honey, being heavier, will settle to the bottom of the can, and leave the thin honey on top to

ripen), and allowed to stand, with only a cloth tied over it, to keep out the dust and let in the air, until thoroughly cured.

HOW TO REACH THE TRADE.

First. You must make people want to buy honey.

In what way? By educating them up to understanding something of the nature of honey, its value as an article of diet, and the comparative cheapness between it and sauces for the table, which must be prepared at a cost of much time and trouble, sweetened, and then cooked; while honey goes farther, and is always ready.

Second. You must make the dealer prefer to buy of you rather than from any one else.

How can this be done? By convincing him that you have a fine article for sale, and that you are a reliable person from whom to purchase. To secure the former, great care must be taken in selecting and preparing the goods for market.

Of course, you all know that I am not a honey-producer, but I have had several years' experience at "Welcome Apiary," and will tell you how we prepare honey for market. Comb-honey is sorted into three lots—the nicest ones are picked out as being "gilt edged," or No. 1. We scrape the propolis off, label the top of the section, encase each one in a carton (which is a folded pasteboard box), and place in single-tier shipping cases, being very sure not to have any leaky ones, for they would discolor the paper, which would look badly. On one side of the carton is a cut of the home apiary, and below it is printed a quotation from the Honey Leaflet, published by Thomas G. Newman & Son, Chicago, Ills.:

"Why eat honey? Because it is good food and good medicine. No article for human consumption is more delicious than honey, and none is more beneficial to the human system. Honey is food in one of its most concentrated forms. . . . It gives warmth to the system, arouses nervous energy, and gives vigor to all the vital functions. It is Nature's offering to man—ready for use, distilled, drop by drop, in myriads of flowers, by a more delicate and perfect process than any human laboratory ever produced."

On the reverse side is a square form, with cut of straw hive and the words, "White Clover Comb-Honey; produced by—" (giving name and residence).

The next best sections of honey in appearance—either the section being soiled, or, perhaps, the cells are not all

sealed, as some are left at the close of the season, or the capping has been broken so that it leaks a little—are what we call “seconds.” These we never label or put in cartons, but scrape carefully, put in shipping cases, and sell for two cents per pound less than the first-class.

The third lot we call culls, and use at home. By a little care in cutting close to the sealed honey, and “putting the best side up,” we have quite a presentable dish of honey, and do not demoralize the market by offering it to grocers.

SHIPPING CASES.

A few years ago, large double-tier shipping cases, holding 48 sections, were thought to be just the thing; but now the smaller the better, and a single-tier 12-pound case seems to meet the demands of the trade. (I am speaking of grocers, and not of commission men.) It exposes less honey at one time to the danger of getting dusty by standing, and broken by handling over, and is very much easier to lift about, and families will often take a whole case, when they would get along with two or three pounds if taken out of a large case.

The shipping cases should be weighed with the cover on, and the weight of each case should be marked plainly before putting the honey in, then the gross weight, and also the net weight of the honey should be marked. A cut of the apiary should be pasted on each side of the box, so purchasers can always know where it came from. As new honey is always taken off during the fruit season, we wait awhile before offering it for sale.

In putting up extracted-honey for the drug and family trade, the ripe, liquid honey is drawn into pails of a uniform size—even 10 pounds gross weight—and is left until the honey granulates. Every woman knows how many things she can use nice tin pails for—they always come in place—and buying it in this way she gets the pail at the price of one pound of honey, which is much less than it could be bought for at the hardware store.

For the grocery trade, after trying numberless sizes and styles of package, we prefer a straight, flint glass, one-pound jelly jar, with a rubber band and a screw-tin top, which makes it self-sealing. As it makes a very tidy package, and holds about the right amount of honey for table use, and can be used for so many things afterward, we feel that they get their money's worth every time.

PREPARING FOR MARKET.

For the pails, a large bright-colored label, containing a cut of the apiary and the words “Pure Extracted-Honey, from the apiary of—” (giving name and residence), is pasted on one side, and on the other side, and on top of the pail cover, directions for liquefying the granulated honey.

On the glass package, which is filled with liquid honey, is pasted a small label containing the information conveyed in the labels for the pails. They are then carefully wrapped in paper, to keep them clean, and packed in baskets, the handles of which have been securely fastened, and taken to market right away.

We use the lightest honey only for glass jars, the next in quality being put in pails, but if there should be any very dark honey, it can usually be disposed of to the bakers.

Honey—both comb and extracted—selected and prepared as above, need only be shown to an experienced dealer to convince him that it is really a fine article. The next thing is to convince him that you are a reliable person from whom to purchase—this is especially the case with extracted-honey. How can this be accomplished?

It is customary to present your card, when wishing to introduce yourself to strangers, and acting on this principle, Mr. Hains had some large, bright-colored cards printed, with the cut on one side, and the same quotation from the Leaflet as on the carton, on the other side. In addition, the following is printed: “Extracted-honey is sold for a lower price than comb-honey, because the comb from which it is extracted is returned to the hive to be again filled, thus increasing the quantity and reducing the cost. To secure the largest return for your money, procure from your family grocer a good article of extracted-honey. To insure purity, purchase none except that which bears the name of some well-known bee-keeper—the nearer to your home the better. Extracted-honey that will not candy, or is offered in packages that are not labeled with guarantee of purity and name of producer, should be avoided. To liquefy candied honey, place the package containing it in hot water until the honey is melted. The cut on the reverse side of this card represents the home and one of the apiaries of the person whose name appears in the margin. He has, at present, about 400 colonies of bees, and guarantees the

absolute purity of all honey bearing his label."

The dealer cannot very well refuse to take the card, and may say: "Well, yes: I have seen that place in passing on the cars. You must have quite a lot of bees there." Then he will look on the other side. "That is the reason, is it, that extracted-honey is cheaper than comb. I always thought that, it was because it was doctored up in some way, and I have always been afraid of candied honey. I do not care if I do have just a few, to see how they go. I will take two or three dozen this time; and, I think you had better leave me some of those cards, too, for I believe that they will help me out with my customers." If he should not say so, I would suggest it to him myself.

HOW TO KEEP THE TRADE.

By square dealing first, last and always. Do not sell to one party a part of your load, and then, because it is getting towards night, and you want to get home, sell to his neighbor across the way for a few cents less per pound if he will clear out your load. Do not put nice sections against the glass, and dark ones in the center. Do not put poor sections in cartons, thinking that they will not be seen until they are carried home, when purchasers cannot help themselves, for they will be sure to tell the grocer of it the next time they call, and say that they do not want any more such honey as that, and that they paid twice what it was worth.

This will not make the grocer feel very good, for he will probably have to "throw in," in trade, much more than the profit on that one piece of honey, and, of course, he will care much more about pleasing that one customer than he will about trading with you; for he paid you just as much as he would any one, and the next time you call on him he will be either "too busy to attend to it," or supplied with all the honey he wants.

Do not put your extracted-honey in packages that are not good for something else when the honey is used up, for notwithstanding the fact that honey is called a luxury, the bulk of extracted-honey, at least, which is sold for table use, is consumed by persons of limited means, and the careful housewife has an eye to the future in buying lard, baking powder, or even honey; be careful that the packages are not reminders of patent medicine, or something else disagreeable. I heard a lady say, not long ago in Cleveland, that she had often

seen what she had for a long time supposed to be bottles of castor oil, but on examination she found that they contained extracted-honey, but she did not forget first impressions, and could not be persuaded to purchase any.

Do not put unripe honey on the market in any kind of package, for it will surely sour and be "a snare and a delusion." Do not forget to put labels on all packages of extracted-honey, stating that it will granulate or candy, and telling how to restore it to liquid form without injuring the flavor. Do not put on sale any leaky packages of honey to smear the hands and the counter, to the disgust of every one connected with the establishment.

Having told you what *not* to do, I will mention some things to do to keep the trade: Extend little courtesies—show dealers how to handle honey carefully, and advise them not to have any leaking honey around the store in bee-time, but tell them how they can manage if any accident should occur in that line. Leave some extra labels for honey in case those in use should become soiled before the honey is sold. Sometimes it is well to furnish a glass show-case, or a set of shelves for their use, and arrange the honey in an attractive form for them yourself, and if you had a large photograph of your place nicely framed to hang up with the goods, so much the better. Do not fail to ask the dealer to come out some fine day, and look through your apiary, and give him some cards to distribute among his customers.

In these ways you will have made a friend of him, and while you have any stock on hand, he will not think of looking elsewhere, even if he has to notify you himself that he is about out of some particular style of package of honey, and would like some more at your earliest convenience. And I warrant you that he will not have a huge placard in his window bearing the inscription, "New Strained Honey," placed over a bottle of honey, as I saw last season in the nicest grocery store in Cleveland—because both dealer and customers will know better.

I think that I have fully explained how the trade may be reached and retained, although as Mr. H. F. Moore read a very exhaustive essay on the subject of going from house to house, before our convention last Winter, I have not thought best to speak of that feature of the trade.

Mr. E. France buys 1,000-mile tickets, and travels on the railroads, stopping at all towns and cities along the line one

way, and returns by another route, visiting grocers and hotel-keepers, and disposes of large crops in that way.

DO WE NEED A TRADE-MARK ?

It is claimed by a prominent bee-keeper that "it will result in protection to honey-producers, and tend to largely swell the membership of the Union." As to the last part of the statement, I have no word of opposition, and if the question were, "Is it best for the Union to have a trade-mark?" I would say that for the purpose of increasing membership, I should think it might be a wise plan. It is also said that "soon consumers everywhere will be educated to the fact that producers never adulterate, because they cannot afford it, and that they can instantly discern (I suppose by means of the trade-mark) which packages were put up by producers, and which by adulterators or city packers."

The only reason given why "producers never adulterate," is "because they cannot afford it," and it seems to me a very lame one. How is it that bee-keepers, who are of necessity unemployed with their regular business during the time when there is more call for honey than at any other time in the year, without having to pay extra rent, without having to provide extra storage-cans, and with only family help, cannot afford to put in their time in this way, if city packers can afford to pay big rent, and high prices for labor to mix and sell the stuff? Mind, I do not say, or even think, that they will; for I believe that, as a class, bee-keepers are up to a higher standard of moral excellence than those of many other callings.

As I understand it, any one who is not either in, or threatened with litigation, can join the Union by paying the sum of \$1.00. I do not know as it is a requirement even to be a bee-keeper, while the supposition might be that only bee-keepers would wish to join.

Now, of the vast number who might join in order to have the use of the trade-mark, it would be very strange if some unworthy persons did not take advantage of this cheap protection, which could not be refused as long as they were members of the Union. Supposing that I had joined this year, and I do not get as large a crop as I expected, and do not feel as if I could pay the dues next January, but have a number of the trade-marks left, would I not be very apt to use them on next year's crop, feeling as if I had already paid for them?

Unless a list of persons entitled to use the trade-mark, should be sent out to all the members monthly, how could they know that some one was not using the trade-mark unlawfully? Besides, would it not cast a reflection on our brother and sister bee-keepers who have not much honey to dispose of, and do not feel able to invest in the trade-mark, and to whom the dealers would say: "Your honey must be bogus, for you have not got the stamp of 'genuine,' as adopted by all the reputable bee-keepers of America," and they would have to sell at a low price—a thing we have for years been fighting against, as demoralizing to the trade.

My advice is, make your own name and apiary an honest trade-mark, the genuineness of which shall not be doubted anywhere. The Union trade-mark might be misused—never allow yours to appear on anything which is not exactly as represented both in quantity and quality. Stand on your own merits, and you will not need to push any honest person down. But do join the Bee-Keepers' Union. Not merely for your own gain, but to set wrongs against your fellow workers right, and to help punish those cravens who dare, for sordid gain, to degrade our honorable profession, which is the furnishing, in a direct line from the fragrant fields and flower-laden boughs of the orchard and forest to the waiting people, the delicious nectar which the busy bee has so deftly stored in dainty snow-white cups, as honey—that most satisfying of all sweets, whose praises have been sung by poets, and whose virtues have been extolled by sages since the earliest days, "When the world was young."—*Read at the Toledo Convention.*

Bedford, Ohio.

Thunder Storms and the Honey-Flow.

A. F. BROWN.

My experience in regard to the effect that thunder storms have on the flow of nectar in flowers, corroborates that of Mr. Joshua Bull (page 76)—that is, the heavier the storm the lighter the honey-flow the following week.

I also find that when thunder storms are several hours in gathering, the flow of nectar that day will be above the average, as a rule.

In several instances, I have known the gathering of a thunder storm to cause a

flow of nectar for several hours preceding the storm, especially from andromeda and saw palmetto.

Thunder storms must not be confounded with warm, mild rains, or, more properly, showers, as the latter rather tend to increase, than diminish a flow of nectar, and the bees work just as well a half hour after the shower as they did before. I have had them gather as much honey on a cloudy day, when there were several showers during the day, as they would on bright, pleasant days.

My experience has been gained by keeping a record of a colony on the scales; noting conditions of the weather, etc.

I also think we have about as heavy and severe thunder storms, here in the South, as in most other sections. Our thunder storms are of two classes: Those that come up and pass within an hour, when the sun is out again as bright as ever; and others that are several hours in forming, and last two or three hours, followed by heavy rains. The latter are the ones that tell on a flow of nectar.

We have only about one-fourth of a crop in this locality, which is due to two or three weeks of cold, rainy weather during the orange bloom, and forest fires destroying most of the saw palmetto; these two sources, being our main reliance for surplus. We have only the Fall flowers to depend upon now, and these are not certain.

In other sections of the State, and especially in the black mangrove belt, I understand they are having good yields. Huntington, Fla.

What to do With Unfinished Sections.

S. L. WATKINS.

Almost every season after the honey-flow has ended, we have on hand a number of unfinished sections. We generally extract the honey they contain, and save these sections for starters, in surplus cases, for another season.

Some bee-keepers practice feeding this honey back to the heaviest colonies, where they have placed all the best sections not quite finished. They are generally successful in securing well-capped, filled-out sections, which pays for all time and trouble.

Great care should be exercised in choosing the colonies that are to do this work. Bees with good, young, prolific queens, where the hives are full to overflowing, are the ones to select.

Place two section cases upon each hive; have the lower case filled with the most finished sections, and the top case with the half and quarter finished ones; next add a top story to the hive, and inside of it place your feeder. The honey that you have extracted, and which you intend feeding should be thinned by adding water, so that the bees may work and carry it away more rapidly; one quart of water to ten pounds of honey is about right (boiling water is best). Feed as fast as the bees can take it up; take off the sections as fast as finished, and add more unfinished ones. When your stock of unfinished sections runs short, reduce the number of colonies that you are feeding; until you have one colony finish what is left.

Contraction is sometimes practiced when feeding back to obtain finished sections. If you use the Langstroth hive, contract to five frames. The time to commence feeding back would be after the last heavy honey-flow, which in some parts of California would be the latter part of June, and in other parts the first of November.

A Chico bee-keeper tells me that he once fed out 1,500 pounds of honey by sprinkling it on the marsh grass near his apiary. He says it was the most satisfactory feeding of bees that he ever did. (He did not feed to obtain finished sections, but simply to supply them with Winter food, as it was an unfavorable honey season.)

SWARMING.

Bees swarm more in a mountainous country than in the valleys.

Of this statement I have had abundant proof. In the Sacramento Valley, along the river bottoms, bees will build up and stay in immense colonies, and finish every section before swarming; and sometimes after their sections are finished, they will commence building comb on the outside of the hive.

But in a mountain location it is entirely different. (I now speak of the Sierra Nevada mountains. I do not know whether it is the same in the mountain ranges in Southern California or not.) When a colony here has the sections about three-fourths finished, out they go; and if the queen-cells are not cut out of the old colony they will swarm themselves to death.

This accounts for the fact that so many farmers who keep bees and do not know much about them, think that the moths cleaned all the bees out, while in reality the bees swarmed too much, and after they were through swarming there were

not enough bees at home to protect them from the moth. If the queen-cells had been cut out at the proper time, all would have been well and good, and the colony saved.

When an old colony swarms, we always take the section case with the adhering bees that it contains, and place it on the new colony; sometimes we place the new colony where the old one stood, and thus catch all the old returning field bees, which generally makes a rousing colony for business, and they soon finish up the sections in good shape.

After the young colony has been in the hive a month or so, and they have things pretty well fixed up, they commence building queen-cells, and make preparations for swarming, and if they are not "nipped in the bud," they will swarm themselves down so as to be almost worthless.

It takes a great deal more care and attention to run an apiary in the mountains than it does in the valley.

CAGING QUEENS DURING A HONEY-FLOW.

Will it pay to cage the queen during a heavy flow of honey, is a question that is yet unsolved by many bee-keepers. Some claim that it pays well in dollars and cents, while others think it is a disadvantage and no profit is derived from this practice at all. I think the secret of it is in the location; some locations, after the main honey-flow, have no smaller ones to follow, and it is in such locations that removing the queen will pay.

The queen should be caged about two weeks before the honey-flow. She may be kept in a small nucleus hive, with two or more frames of adhering bees. In ten days all the queen-cells should be removed from the colony and a frame of larvæ inserted, with which the bees will rear another batch of queen-cells, which will keep them occupied about ten days longer; by that time you will be ready to give them their old queen again. Go to the nucleus hive where you put her, and lift out the two frames and place them in the old hive again.

The bees, after having their queen removed, work just as well without a queen as with one; because they have all the material necessary to make a queen, and, of course, they are in a perfectly natural condition, and will just rush the honey in and fill every cell as fast as the young bees emerge. The old colony, you see is getting stronger every day, and about the time the honey-flow ceases, all the first or original brood will be hatched. Of what use afterwards is

the great number of bees that would hatch, if the queen had been left in the hive! They would simply be consumers, instead of producers; for after the honey-flow is gone, there would not be anything for them to do. Swarming is controlled to a great extent, too, by removing the queen. When running for extracted-honey removing the queen is bound to be a success in certain locations, and it will also be a great aid in the production of comb-honey.—*Pacific Rural Press.*

Grizzly Flats, Calif.

Ohio at the World's Fair.

ERNEST ROOT.

The Ohio State Bee-Keepers' Association at Toledo appointed Dr. A. B. Mason, C. F. Muth, and J. B. Hains to look after the securing of an appropriation by the State to provide for the expense of Ohio's apianian exhibit at the Chicago Exposition.

A few weeks ago, with this purpose in view, the Doctor made a trip to Columbus and interviewed the Commissioners of the World's Fair. One of them wrote him a letter, saying that they would have another meeting in Cleveland, on Thursday, June 4, and suggested that then would be a good time for representatives of the Ohio State Bee-Keepers' Association to be present and state their needs.

Accordingly, Dr. Mason, Mr. J. B. Hains, Miss Bennett, J. T. Calvert, and E. R. R., by appointment met at the Hollenden Hotel, whither, also, the Commissioners of the World's Fair were to meet at 10 am.

After holding a short preliminary consultation, it was agreed not to ask for any stated sum of money by way of an appropriation for the bee and honey interests, and that we would request the Commissioners to put the whole matter into the hands of the Ohio State Bee-Keepers' Association. We then repaired to a parlor where the Commissioners were in session.

At the proper time Dr. Mason, as spokesman, arose, and after stating what the bee-keepers of other States were doing, and the importance of the bee and honey interests of the State, and the number of bee-keepers, requested that the Commissioners put the whole matter into the hands of the State association. As soon as the association knew that they were to have charge of preparing and caring for the exhibit,

they would proceed to look after details.

Dr. Mason was just the man to state our case. He made his modest little speech to a body of picked men. This body was made up of some of the best men in Ohio, full of business and vim; among them the Vice-President of the Baltimore & Ohio railroad, Capt. W. W. Peabody, the Chairman of the Board; Mr. Ritchie, and Hon. Harvey Platt, United States Commissioners for Ohio; L. N. Bonham, Secretary of the State Board of Agriculture, and others.

One of the number, the chairman, was disposed to have a little fun; but he found he had his match in Dr. Mason. Said he, "Mr. Mason, about how much space will the Ohio bee-keepers want?" The Doctor replied that he always liked to ask for enough. Turning to E. R. K., with a twinkle in his eye, he said, "I think we need about 10,000 square feet." The Commissioners, and especially the Chairman, were nonplused; and the Vice-President of the Baltimore & Ohio railroad took out his pencil and began to figure. In the meantime, the Doctor behaved himself very circumspectly. Pretty soon they saw the joke, and began to laugh; and by dint of questioning, they learned that about 2,500 square feet would answer.

It is some cause for congratulation to the bee-keepers of Ohio, that they have made their application early—perhaps as early as any other association; and through Dr. Mason, they stand well with the Commissioners, and will doubtless receive a fair share of the appropriation and space under their control.

Our delegation made a very favorable impression upon the Commissioners, several of whom showed much interest in the matter, and voluntarily promised to do all they could for us. Dr. Mason has some personal friends among the Commissioners, and we feel much elated at the prospect before us.—*Gleanings*.

Bee-Keeping in Colorado.

REV. E. MILLESON.

About six years ago the State Bee-Keepers' Association was organized, with some six members, for a beginning of what is now a very creditable organization.

At the time of our organization it was not known that it was possible to produce any considerable amount of honey in Colorado. The introduction of alfalfa as a forage plant, very soon developed the

fact that it was also one of the very best honey-producing plants grown in the West.

The vast developments in all the departments of industry in our young State has opened the eyes and quickened the steps of the vast number of toilers. The enterprising bee-keeper has not been left behind. Until recently we had no market for Colorado honey; California honey had the preference; but now it is all changed; there is no better honey produced on the American continent than is found in our sales rooms in Colorado.

I anticipated a good report from the bee-keepers from the north, middle and extreme south; there are very many questions to be asked and answered in our annual gatherings; it affords us an opportunity to exchange our experiences; our successes and failures will, no doubt, do us all good.

I am well pleased with the growth of our association in the past, and look forward to still greater achievements in our particular industry in the future. The possibilities of the bee culturist in Colorado for the future are indeed great, with such unlimited honey-producing plants, both in the northern and extreme southern portion of the State.

Allow me to congratulate you, bee-keepers, on the continued prosperity of our calling; hoping that the future may continue as bright and remunerative as the past has been. I am glad that there is indeed light ahead in regard to the foul-brood. This peculiarly bright climate surely is very much in our favor.—*Read at the State Convention.*

Denver, Colo.

Convention Notices.

The ninth annual meeting of the Susquehanna County, Bee-Keepers' Association will be held on Thursday, Sept. 3, at South Montrose, Pa.
H. M. SEELEY, Sec., Harford, Pa.

The Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting on Wednesday and Thursday, Oct. 14 and 15, 1891, at Fennimore, Grant Co., Wis.

BENJ. E. RICE, Sec., Roscobel, Wis.

Bees will not work on fruit juice when there is honey in the fields, and they cannot hurt sound fruit at any time. If any of you doubt this statement, put a bunch of sound grapes or a sound peach in a hive of bees, and note the result 24 hours afterwards. It is birds and hornets that damage sound fruit—bees only gather lost juices.—*Exchange*.

CONVENTION DIRECTORY.*Time and place of meeting.*

1891.
 Sept. 3.—Susquehanna County, at So. Montrose, Pa.
 H. M. Seeley, Sec., Harford, Pa.
 Oct. 14, 15.—S. W. Wisconsin, at Fennimore, Wis.
 Benj. E. Rice, Sec., Boscobel, Wis.

✎ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—P. H. Elwood....Starkville, N. Y.
 SECRETARY—C. P. Dadant.....Hamilton, Ills.

National Bee-Keepers' Union.

PRESIDENT—James Heddon..Dowagiac, Mich.
 SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

✎ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Preventing Swarming.

Mr. Thomson's remarks on page 120 of the BEE JOURNAL, for 1890, upon the construction of hives, are both timely and practical. He says that "swarming must be prevented;" but his advice regarding the manner of preventing swarming is too much like a blank. We wish that Mr. Thomson, and other bee-keepers, would give us, through the BEE JOURNAL, advice on this most important question.

O. & E. CLARK.

Greenleaf, Wis.

Poor Honey-Flow.

On page 107, H. Hine, of Sedan, Ind., asks the following question: "What is the reason that bees will not store honey in the surplus boxes (which were put on new) when swarms will fill the brood-frames in less than three weeks?" I should say, because there was none to gather. I had intended to make a report on my new hive this season, but the season has been so unfavorable that I have not done so. Last year I made 8 hives, and transferred weak colonies into a part of them, but the season was so unfavorable that all the bees died during the Winter, except 2 colonies,

and they were very weak. However, having good hives, and nice combs, as fast as swarms issued I put them into the new hives, and put on the sections, and in no instance did they fail to go to work within three days, and in some instances on the same day they were hived. I now have 10 colonies in those hives, but the honey-flow has been so poor that they only get about enough for their own use. The hive has entirely fulfilled my expectations. I use it for comb-honey. For extracted-honey, I use the Langstroth hive. There is no secret about my hive, nor is it patented, and should any bee-keeper desire to know anything about it, I will describe it in the BEE JOURNAL.

O. P. MILLER.

Glendon, Iowa, July 25, 1891.

Decisions by the Higher Courts.

What the bee-keeping interest needs most to secure it on a rational basis, is a few comprehensive decisions in its favor by courts of last resort; and these will be its greatest security in the future. Then, when the advice of an attorney is sought in any case of grievance against bees and bee-keepers, the lawyer will have these decisions to guide him in giving advice, and many annoying suits will be averted. If the Bee-Keepers' Union accomplishes no more than this, it will have performed a great work. The Union cannot care for mere grievances. It defends *bee-keeping as a business*, and nothing else.

G. W. DEMAREE.

Christiansburg, Ky.

Black, Shiny Bees, etc.

In reply to the question of D. C. Leach (page 118), AMERICAN BEE JOURNAL, we would like to state that the black, shiny bees he mentions are simply bees that have lost their downy hair. These bees are not sick nor suffering. Why they are to be found more numerous in one hive than in another, probably, is due to the same cause that makes men in one family bald headed, when those of another preserve their hair late in life. It is certain that bees which are in the habit of pilfering and robbing become bald much sooner than those of other hives, owing, probably, to their being caught by other bees and escaping from them again after more or less ill-treatment. There are many bee-keepers who are of opinion that the so-called nameless bee-disease is simply constipation, caused by unhealthy honey as food.

This disease is most prevalent at the close of Winter, and usually ceases entirely when new honey comes in; but in some cases is found to continue as long as there is any old honey in the hive. We have read in some old book the advice given of curing the bees of diseases contracted during the Winter, by feeding them with syrup to which a slight quantity of grape wine has been added. Although we have never tried this remedy, we are of opinion that a dose of good sugar syrup, with or without wine, would usually cure a colony effected with this disease, although it seems next to impossible to cure those bees which are so effected as to be unable to drag themselves. There is nothing of an epidemic nature in these diseases, and we do not think they will become dangerous to the apiarist.

Hamilton, Ills. DADANT & SON.

First Poor Season in Ten Years.

Last Fall I put 89 colonies of bees into the cellar, but 20 colonies perished during the Winter. May was cold and windy and some of the remaining colonies Spring dwindled, until only 30 of them were left. I now have 64 colonies but the bees get no nectar from clover nor basswood, and some of the swarms had to be fed; but now they are gathering a little more honey than they need for immediate consumption. This is the first season during ten years' residence in this part of the State, that I did not get a paying crop of honey.

EDWIN BUMP.

Marshfield, Wis., July 25, 1891.

Milkweed and the Bees.

I bought two colonies of bees in 1890, and they did well, considering the poor season we had. They filled their brood-chamber full of stores for Winter, and in the Spring were strong, healthy and clean. On June 7 one of the colonies cast a swarm, which I hived, but the next day they left to seek a home for themselves. The other colony has cast no swarm yet, and the bees in both hives start to work strangely. They always hung out, and did not work as they ought to. I examined them, and found lots of rotten brood, from which I send you a sample, and would like to know the cause. Some persons say the brood got chilled, others say the place where the hives stand is too hot. They stand in a corner where either north or west wind can strike them, but it is a clean, dry

place in the garden. They work a good deal on milkweed, and I often see bees drag others out of the hive on account of some substance sticking to their legs. Will you please give me a little information on the subject? I like bees and am not afraid of them; but everything seems to go wrong. All other bees in this neighborhood are doing well.

LaCrosse, Wis.

C. F. LANG.

[It is not foul-brood, but simply a case of chilled brood. Milkweed yields honey plentifully, but it also has queer masses of pollen, which attach themselves to the bees' feet, and cripples or kills them. This has, no doubt, caused the trouble mentioned above. These pollen masses attach themselves to the bees' feet by a glutinous substance, which hardens quickly, and is difficult to remove after hardening.—Ed.]

Good Yield from Basswood.

For the past 18 days we have been having a large yield of honey from basswood, the trees being literally covered with blossoms, and it was one continual roar day and night. The weather has been cool and very dry, and although the season has been cold and backward, the bees have built up remarkably well, and were in splendid condition for this basswood flow. I have not found it necessary to use any outside case or shell for Spring protection of bees, if they were strong and well supplied with stores when taken out of the cellar. I find that about 90 per cent. of my colonies have their hives full of sealed honey and brood, and have made from 20 to 48 pounds of surplus. I shall take off all surplus, extract one frame from each hive, and prepare for our Fall yield. If the season is warm, I shall run for comb-honey; if cold, for extracted-honey.

N. P. ASPINWALL.

Harrison, Minn., July 26, 1891.

Adulteration of Beeswax.

We read a good deal about the adulteration of honey, which is bad enough, if true, but I have every reason to believe that the adulteration of the product from the honey-bee does not stop with honey. Bee-keepers, or ex-bee-keepers, must be mixing their beeswax with lard and tallow. I have repeatedly seen cakes of wax which had been brought to store-keepers, contain-

ing tallow and lard—mostly the former—and ruined for making comb-foundation. Not only this, but the store-keeper has not the experience to detect this adulteration, and after one or two losses in this way, he says: "No, we do not take beeswax any more; had no luck with it;" and the bee-keeper must find a market elsewhere. Besides, the store-keeper smiles a ghastly smile in his sleeve, when he hears that bee-keepers are exceptionally honest; and he may, in fact, determine to deal, in the future, only with bee-keepers, thinking that if there are any worse people, he wants to have nothing to do with them.

R. F. HOLTERMANN.

Brantford, Ont.

Good Season for Honey.

I have a fondness for bees, and think I will try the business, hoping to be successful, and shall begin with only a few colonies. The old box-hive is generally used here, and the owners never examine the bees, to see how they are doing, until they think it time to take the honey, when they very often find a number of colonies dead from starvation, and then they say that bees will not pay here. This is a fine country for peaches, plums, and blackberries, and very good for apples. There is an abundance of hoarhound and horsemint, but I do not think that white clover has been tried sufficiently to determine how it would grow, although I am inclined to think it would do well. I think there are not more than 50 colonies of bees within a radius of 4 miles from my place. Last year and this year their owners have taken considerable honey, and claim that they have been good honey seasons, but I do not know of any one of them having planted a single thing for his bees. T. G. SHELTON.

Mount Sylvan, Tex.

Better than Usual.

Last Spring my apiary had become reduced to 7 colonies, but I now have 13 colonies. For several seasons I have been obliged to feed my bees, but this season they have done better, and I shall have some surplus honey, after providing them with Winter stores. My bees are Italians, and I have thought that a change might be desirable, although some of my colonies have been crossed with neighboring bees. JNO. HUNT.

Plain City, Ohio.

Dark Honey.

Can you inform us as to the cause of section honey being of so dark a color this year? It is so in Will County, almost invariably. Bee-men here cannot explain it. JOHN W. MERRILL.

Willmington, Ill., July 31, 1891.

[The color of honey is determined by the flora from whence it comes. White clover being comparatively scarce and the so-called honey-dew plenty, it is more than probable that the honey you mention is a mixture of the two.—ED.]

Just the Thing.

The Honey Almanac is just the thing to increase sales of honey. Many persons are surprised at the number of ways in which honey can be used. I would suggest that all bee-keepers having good recipes should send them to you for next year's Almanac. If the bee-keepers in "Dixie" cannot lead, we will follow close behind. W. H. BLACK.

Montgomery, Ala.

Potter Bee-Escape.

Seeing an advertisement of Porter's Spring Bee-Escape, I ordered one, and am very well pleased with it. I would not now do without it, if it should cost \$5 to replace it. N. W. SMULTZ.

Shreve, Ohio.

Croup Remedy.

This is the best known to the medical profession, and is an infallible remedy in all cases of mucus and spasmodic croup:

Raw Linseed Oil.....	2 oz.
Tincture of Blood Root.....	2 drs.
" " Lobelia.....	2 drs.
" " Aconite.....	1/4 dr.
Honey.....	4 oz.

Mix. Dose, 1/4 to 1 teaspoonful every 15 to 20 minutes, according to the urgency of the case. It is also excellent in all throat and lung troubles originating from a cold. This is an excellent remedy in lung trouble: Make a strong decoction of hoarhound herb and sweeten with honey. Take a tablespoonful 4 or 5 times a day. O. S. COMPTON.

Follow the bee's example, and in your care of honey and comb, let nothing go to waste.

Wavelets of News.

Workers Chasing Drones.

A lady called the other day to inquire why her bees were chasing drones. If there was plenty of honey to be had in the fields, the gentleman of leisure would be allowed to take their daily outings, be gladly welcomed on their return, and met at the entrance and given prepared food by their obedient servants, the workers.

In the economy of the bee-hive, the management is for the good of the whole community; if the queen is not able to perform her duties, she is removed, and another one reared in her place.

When the income of the community lessens, their expenses are cut down to meet it. The providers govern the outlay; the queen does not govern the colony, but the workers do; when they wish to rear much brood, they feed the queen prepared food, abundantly; and when they think their income does not justify it, they feed her less.

When honey is plenty in the fields, drones are reared, and preparations are made for swarming, but as soon as it falls, drones are driven out and daily expenses are lessened.—Mrs. L. HARRISON, in the *Prairie Farmer*.

Bee-Escapes.

I have received a new bee-escape from Mr. Porter, of Lewiston, Ills., in exchange for one sent him last year. It is a great improvement over his first one, is well made, and quite an ingenious little device. It is a horizontal escape on my general plan, even to the two thicknesses of tin with bee-space between.

The only new feature is that the bees must pass, one at a time, between two springs that immediately close to about half a bee-space, after the bee has passed through.

I tried a similar spring arrangement last year, but soon gave it up as impracticable. It looks all right, and will, no doubt, work when bees are not very numerous. When hives are "boiling over," and bees fill every corner and crevice about the hive, is when the trouble begins.

I will predict that when this escape is used during a good honey-flow, when bees are strong, that the bees will crowd

against the springs from the hive-side, in their efforts to get back into the cases, closing the exits completely, and that it will then not work at all.

These springs are entirely unnecessary, as I have proved to my entire satisfaction. The difficulty of preventing the bees from returning I have long since overcome. The only remaining problem is to induce them to leave supers more speedily. I have some modified forms that I think will accomplish this. Really, I would like to know what Mr. Porter's claims for a patent are, and is it not a little late to try to try to patent an invention that is the common property of the bee-keepers of America?—C. H. DIBBEN, in *Plowman*.

The Flight of Bees.

It seems to be almost a general idea that honey-bees will fly nearly a mile a minute. Those who have watched loaded bees coming to the apiary near sunset have a different opinion, however. A heavily loaded bee when the sun is low may be seen a distance of twenty rods. It will require from nine to twelve seconds for it to go that distance. I have also timed them a distance of from forty rods to half a mile with an apiary in full view by setting a single bee at work on a comb containing syrup. The quickest time made would be about five minutes, the longest from twelve to fifteen minutes.

Allowing it two minutes to disgorge its nectar and it will easily be seen that a honey-bee is not the swiftest thing in creation. Probably the flying time of bees on their outward trip is at the rate of from fifteen to twenty miles per hour. A loaded one will require about twice the length of time to make the same distance. If bees flew at the rapid rate that some insist, they would make but few trips through woods before dashing themselves to atoms against obstructions.—J. H. ANDRE, in *National Stockman*.

Ventura county, Calif., is said to contain over 18,000 colonies of bees. The annual value of the honey crop is over \$60,000.

Conundrum.—Why is a bee-hive like a bad potato? Answer.—A bee-hive is a bee-holder, a beholder is a spectator, and a spect-tater is a bad potato.

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ALFRED H. NEWMAN,

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☞ Systematic work in the Apiary will pay. Use the *Apiary Register*. It costs:

For 50 colonies (120 pages)\$1 00
" 100 colonies (220 pages) 1 25
" 200 colonies (420 pages) 1 50

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We Club the American Bee Journal for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

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The American Bee Journal.....	\$1 00....	
and Gleanings in Bee-Culture.....	2 00....	1 75
Bee-Keepers' Guide.....	1 50....	1 40
Bee-Keepers' Review.....	2 00....	1 75
The Apiculturist.....	1 75....	1 65
Canadian Bee Journal.....	1 75....	1 65
American Bee-Keeper.....	1 50....	1 40
The 7 above-named papers.....	6 00....	5 00
and Langstroth Revised (Dadant).....	3 00....	2 75
Cook's Manual (1887 edition).....	2 25....	2 00
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Doolittle on Queen-Rearing.....	2 00....	1 75
Bees and Honey (Newman).....	2 00....	1 75
Binder for Am. Bee Journal.....	1 00....	1 50
Dzierzon's Bee-Book (cloth).....	3 00....	2 00
Root's A B C of Bee-Culture.....	2 25....	2 10
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Western World Guide.....	1 50....	1 30
Heddon's book, "Success,".....	1 50....	1 40
A Year Among the Bees.....	1 50....	1 35
Convention Hand-Book.....	1 50....	1 30
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Toronto Globe (weekly).....	2 00....	1 70
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The Lever (Temperance).....	2 00....	1 75
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American Garden.....	2 50....	2 00
Rural New Yorker.....	2 50....	2 00
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When talking about Bees to your friend or neighbor, you will oblige us by commending the *BEE JOURNAL* to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the *Convention Hand-Book*, by mail, postpaid. It sells at 50 cents.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Supply Dealers should write to us for wholesale terms and cut for Hastings' Perfection Feeders.

If you have a desire to know how to have Queens fertilized in upper stories, while the old Queen is still laying below—how you may *safely introduce* any Queen, at any time of the year when bees can fly—all about the different races of bees—all about shipping Queens, queen-cages, candy for queen-cages, etc.—all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know, send for "Doolittle's Scientific Queen-Rearing;" a book of 170 pages, which is nicely bound in cloth, and is as interesting as a story. Price, \$1.00. For sale at this office.


A Nice Pocket Dictionary will be given as a premium for only one new subscriber to this JOURNAL, with \$1.00. It is a splendid little Dictionary—just right for the pocket. Price, 25 cents.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

Binders made especially for the BEE JOURNAL for 1891 are now ready for delivery, at 50 cents each, including postage. Be sure to use a Binder to keep your numbers of 1890 for reference. Binders for 1890 only cost 60 cents, and it will pay you to use them, if you do not get the volumes otherwise bound.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with \$1.00 to pay for the same), or 2 subscribers to the HOME JOURNAL may be sent instead of one for the BEE JOURNAL.

YOU NEED an Apilary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for \$1.25; or for 200 colonies for \$1.50. *Order one now.*

 The Union or Family Scale has been received, and I am much pleased with it. W. H. KIMBALL.
Davenport, Iowa.

We send both the Home Journal and Bee Journal for one year, for \$1.35.

THE HONEY-BEE: Its Natural History, Anatomy, and Physiology. By T. W. Cowan, editor of the *British Bee Journal*, illustrated with 72 figures and 136 illustrations. \$1.00. For sale at this office.

The Bee-Keepers' Directory, by Henry Alley, Wenham, Mass. It contains his method for rearing queens in full colonies, while a fertile queen has possession of the combs. Price by mail, 50 cents.

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

Very Punctual.—I was surprised to receive the feeder as soon as I did. I like it very well. I receive mail matter in a shorter time from you than from Carlisle, O., only eight miles from here.

JOHN H. ROHRER.
Tippecanoe City, O., July 16, 1891.